

# Herbicide Usage Based on Weed Growth in Wheat in Eastern Oregon

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More than 50 different kinds of broadleaved weeds and grasses can be found in most of the eastern Oregon cereal fields. Many of these weeds are resistant to one or more of the commonly used herbicides.

Eight registered herbicides, one with experimental label and two with component parts registered as a tank mix, are available for general use. These herbicides include soil-active herbicides such as linuron (Lorox), diuron (Karmex), and terbutryn (Igran). These chemicals normally are used in the fall after the grain has emerged and when sufficient rain has occurred to firm the soil surface.

Bromoxynil and bromoxynil-MCPA combinations, 2,4-D and dicamba-2,4-D combinations are used after weeds have emerged. All, with the exception of straight bromoxynil, should be applied after the grain is well established, preferably in the 3- to 5-tiller stage. Bromoxynil-diuron or bromoxynil-linuron combinations are

used after weeds have emerged in late winter or early spring.

Some unregistered herbicides show promise of aiding in the weed control program. Many of these probably will be registered in the near future. Some are promising for the control of hard-to-kill weeds, including cheatgrass.

Good weed control requires the proper herbicide. Selection is based on stage of weed growth, age of grain, and texture of soil. Check the label on the container or get additional information from qualified weed control authorities.

The table shows relative timing on weed growth of several herbicides under eastern Oregon conditions. In some instances the amount of weed growth may be larger or smaller than recorded. Since this is only a guide, additional information should be obtained from qualified agents, dealers, or investigators.

Herbicide Usage Based on Weed Growth in Eastern Oregon

| Weed group  | terbutryn<br>(Igran) | linuron<br>(Lorox) | diuron<br>(Karmex) | 2,4-D | MCPA  | +<br>Dicamba<br>2,4-D | Brom-<br>oxynil | Brom-<br>oxynil +<br>MCPA | Maloran <sup>1</sup> | Bromoxynil<br>+<br>diuron <sup>2</sup> | Bromoxynil<br>+<br>linuron <sup>2</sup> |
|---|----------------------|--------------------|--------------------|-------|-------|-----------------------|-----------------|---------------------------|----------------------|--|---|
| <b>Borage</b>   |                      |                    |                    |       |       |                       |                 |                           |                      |  |   |
| Fiddleneck tarweed<br>( <i>Amsinckia intermedia</i> )       | AB                   | BC                 | AB                 | BCD   | BC    | BCD                   | B               | BCD                       | BC                   | BCD                                    | BCD                                     |
| Rough tarweed (Alkanet)<br>( <i>Anchusa officinalis</i> )   | B                    | AB                 | AB                 | ..... | ..... | C                     | B               | BC                        | AB                   | BC                                     | BCD                                     |
| Corn gromwell<br>( <i>Lithospermum arvense</i> )            | AB                   | ABC                | .....              | ..... | ..... | C                     | B               | BC                        | AB                   | BC                                     | BC                                      |
| Catchweed (madwort)<br>( <i>Asperugo procumbens</i> )       | A                    | .....              | .....              | BC    | B     | BC                    | .....           | BC                        | A                    | BC                                     | BC                                      |
| <b>Buckwheat</b>  |                      |                    |                    |       |       |                       |                 |                           |                      |  |   |
| Prostrate knotweed<br>( <i>Polygonum aviculare</i> )        | A                    | .....              | A                  | B     | ..... | BC                    | .....           | BC                        | .....                | B                                      | B                                       |
| <b>Buttercup Family</b>                                     |                      |                    |                    |       |       |                       |                 |                           |                      |  |   |
| Horned-head buttercup<br>( <i>Ranunculus testiculatus</i> ) | AB                   | AB                 | A                  | ..... | ..... | B                     | .....           | B                         | AB                   | B                                      | B                                       |
| <b>Figwort</b>  |                      |                    |                    |       |       |                       |                 |                           |                      |  |   |
| Ivy-leaved speedwell<br>( <i>Veronica hederacifolia</i> )   | AB                   | A                  | .....              | ..... | ..... | B                     | .....           | .....                     | A                    | —                                      | —                                       |
| <b>Geranium</b>   |                      |                    |                    |       |       |                       |                 |                           |                      |  |   |
| Red stem filaree<br>( <i>Erodium cicutarium</i> )           | AB                   | AB                 | A                  | B     | B     | BC                    | .....           | B                         | AB                   | BC                                     | BC                                      |
| <b>Goosefoot</b>  |                      |                    |                    |       |       |                       |                 |                           |                      |  |   |
| Russian thistle<br>( <i>Salsola kali</i> )                  | .....                | .....              | .....              | C     | B     | BC                    | .....           | B                         | .....                | B                                      | B                                       |
| Lambsquarters<br>( <i>Chenopodium album</i> )               | ABC                  | ABC                | ABC                | BCD   | BC    | BCD                   | B               | BC                        | ABC                  | BC                                     | BC                                      |
| Goosefoot<br>( <i>Chenopodium hybridum</i> )                | ABC                  | ABC                | ABC                | BCD   | BC    | BCD                   | B               | BC                        | ABC                  | —                                      | —                                       |



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## Herbicide Usage Based on Weed Growth in Eastern Oregon—(Cont.)

| Weed group  | terbutryn<br>(Igran) | linuron<br>(Lorox) | diuron<br>(Karmex) | 2,4-D | MCPA  | Dicamba +<br>2,4-D | Brom-<br>oxynil | Brom-<br>oxynil +<br>MCPA | Maloran <sup>1</sup> | Bromoxynil<br>+<br>diuron <sup>2</sup> | Bromoxynil<br>+<br>linuron <sup>2</sup> |
|---|----------------------|--------------------|--------------------|-------|-------|--------------------|-----------------|---------------------------|----------------------|--|---|
| <b>Mustard</b>  |                      |                    |                    |       |       |                    |                 |                           |                      |  |   |
| False-flax<br>( <i>Camelina microcarpa</i> )                  | AB                   | AB                 | AB                 | BC    | B     | BCD                | B               | BC                        | AB                   | BC                                     | BC                                      |
| Shepherd's purse<br>( <i>Capsella bursa-pastoris</i> )        | AB                   | AB                 | A                  | BCD   | BC    | BCD                | B               | BC                        | AB                   | BC                                     | BC                                      |
| Purple (blue) mustard<br>( <i>Chorispora tenella</i> )        | AC                   | ABC                | AB                 | ..... | ..... | BC                 | B               | BC                        | ABC                  | B                                      | B                                       |
| Tansy mustard<br>( <i>Descurainia pinnata</i> )               | .....                | AB                 | AB                 | BC    | B     | BC                 | B               | BC                        | AB                   | BC                                     | BC                                      |
| Bushy wallflower<br>( <i>Erysimum repandum</i> )              | AB                   | AB                 | A                  | BC    | B     | BC                 | B               | BC                        | AB                   | BC                                     | BC                                      |
| Yellow peppergrass<br>( <i>Lepidium perfoliatum</i> )         | AB                   | AB                 | AB                 | BC    | B     | BC                 | B               | BC                        | AB                   | B                                      | B                                       |
| Tumble mustard (Jim Hill)<br>( <i>Sisymbrium altissimum</i> ) | A                    | AB                 | A                  | BCD   | BC    | BCD                | B               | BC                        | AB                   | BC                                     | BC                                      |
| Fanweed (field pennycress)<br>( <i>Thlaspi arvense</i> )      | A                    | AB                 | AB                 | BCD   | BC    | BCD                | B               | BC                        | AB                   | BC                                     | BC                                      |
| Wild mustard<br>( <i>Brassica spp.</i> )                      | A                    | AB                 | AB                 | BCD   | BC    | BCD                | B               | BC                        | AB                   | —                                      | —                                       |
| Flixweed<br>( <i>Descurainia sophia</i> )                     | .....                | AB                 | A                  | BC    | B     | BC                 | B               | BC                        | AB                   | B                                      | B                                       |
| <b>Madder</b>   |                      |                    |                    |       |       |                    |                 |                           |                      |  |   |
| Bedstraw, cleavers, catchweed<br>( <i>Galium Aparine</i> )    | ABC                  | AB                 | AB                 | ..... | ..... | .....              | B               | BC                        | AB                   | BC                                     | BC                                      |
| <b>Mint</b>   |                      |                    |                    |       |       |                    |                 |                           |                      |  |   |
| Henbit (dead nettle)<br>( <i>Lamium amplexicaule</i> )        | ABC                  | AB                 | AB                 | ..... | ..... | BC                 | B               | B                         | AB                   | BC                                     | BC                                      |
| <b>Purslane</b>   |                      |                    |                    |       |       |                    |                 |                           |                      |  |   |
| Miner's lettuce<br>( <i>Montia perfoliata</i> )               | AB                   | AB                 | A                  | ..... | ..... | B                  | B               | B                         | AB                   | BC                                     | BC                                      |
| <b>Pea</b>  |                      |                    |                    |       |       |                    |                 |                           |                      |  |   |
| Hairy vetch<br>( <i>Vicia villosa</i> )                       | .....                | .....              | .....              | BCD   | B     | BCD                | .....           | B                         | .....                | —                                      | —                                       |
| <b>Pink</b>   |                      |                    |                    |       |       |                    |                 |                           |                      |  |   |
| Corn cockle<br>( <i>Agrostemma githago</i> )                  | AB                   | AB                 | AB                 | ..... | ..... | BC                 | B               | B                         | AB                   | BC                                     | BCD                                     |
| Cow cockle<br>( <i>Saponaria vaccaria</i> )                   | AB                   | AB                 | AB                 | ..... | ..... | B                  | B               | BC                        | AB                   | —                                      | —                                       |
| Umbel chickweed<br>( <i>Holosteum umbellatum</i> )            | A                    | .....              | .....              | ..... | ..... | B                  | .....           | B                         | .....                | B                                      | B                                       |
| <b>Polemonium</b>   |                      |                    |                    |       |       |                    |                 |                           |                      |  |   |
| Jacobs ladder<br>( <i>Polemonium micranthum</i> )             | AB                   | AB                 | AB                 | BC    | B     | BC                 | .....           | B                         | AB                   | BC                                     | BC                                      |
| <b>Sunflower</b>  |                      |                    |                    |       |       |                    |                 |                           |                      |  |   |
| Prickly lettuce<br>( <i>Lactuca scariola</i> )                | ABC                  | AB                 | .....              | BCD   | BC    | BCD                | B               | BC                        | ABC                  | BC                                     | BC                                      |
| Dog fennel (Mayweed)<br>( <i>Anthemis cotula</i> )            | ABC                  | AB                 | AB                 | ..... | ..... | BC                 | B               | B                         | AB                   | BC                                     | BC                                      |
| Pineapple weed<br>( <i>Matricaria matricarioides</i> )        | AB                   | AB                 | AB                 | BC    | B     | BC                 | B               | B                         | B                    | —                                      | —                                       |
| <b>Carrot</b>   |                      |                    |                    |       |       |                    |                 |                           |                      |  |   |
| Bur chervil<br>( <i>Anthriscus scandicina</i> )               | AB                   | AB                 | .....              | ..... | B     | BC                 | .....           | B                         | AB                   | B                                      | B                                       |
| Poison hemlock<br>( <i>Conium maculatum</i> )                 | A                    | AB                 | A                  | BC    | ..... | BC                 | .....           | B                         | AB                   | —                                      | —                                       |
| <b>Grasses</b>  |                      |                    |                    |       |       |                    |                 |                           |                      |  |   |
| Cheatgrass<br>( <i>Bromus tectorum</i> )                      | AB                   | AB                 | .....              | ..... | ..... | .....              | .....           | .....                     | .....                | .....                                  | .....                                   |

<sup>1</sup> Experimental label.

<sup>2</sup> Components registered as tank mix.

Rating scale:

A = weeds germinating.

B = weeds emerging to 2 leaf.

C = weeds 2 leaf to 2 inches diameter.

D = weeds 2 to 4 inches diameter.

..... = herbicide weak on species.

— = limited information.